

REPLACEMENT SHEET

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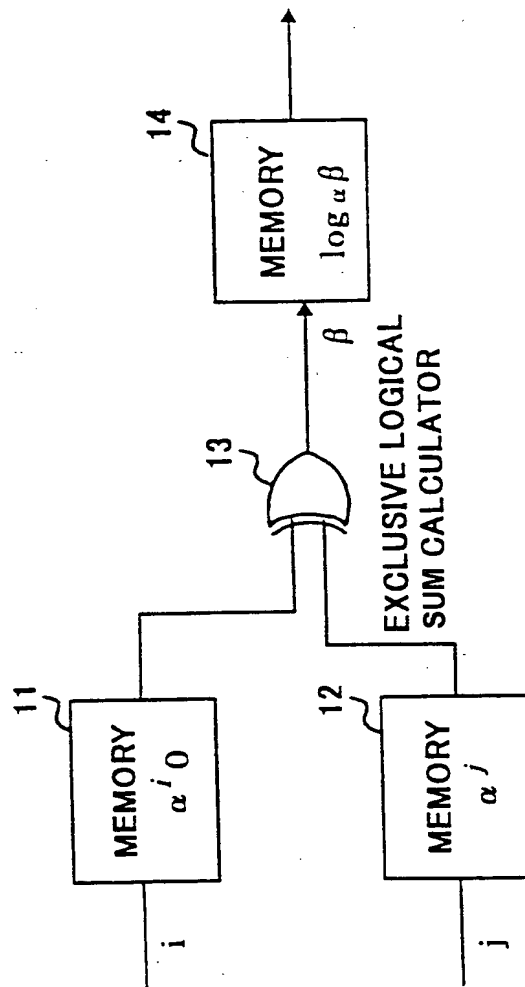


FIG.1

RELATED ART

REPLACEMENT SHEET

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POWER EXPRESSION β	VECTOR EXPRESSION	$\log_{\alpha} \beta$
α^0	100	0
α^1	010	1
α^2	001	2
α^3	110	3
α^4	011	4
α^5	111	5
α^6	101	6
$\alpha^7(0)$	000	(7)

FIG.2

RELATED ART

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0	1	2	3	4	5	6	7	8	9
0	7	3	6	1	5	4	2	0	0
1	6	4	7	5	1	3	0	2	2
2	4	6	3	2	0	7	1	5	5
3	5	2	1	6	7	0	3	4	4

FIG.3A
RELATED ART

0	1	2	3	4	5	6	7	8	9
0	7	3	6	1	5	4	2	0	0
2	4	6	3	2	0	7	1	5	5
1	6	4	7	5	1	3	0	2	2
3	5	2	1	6	7	0	3	4	4

FIG.3B
RELATED ART

0	1	2	3	4	5	6	7	8	9
0	7	3	6	1	5	4	2	0	0
2	20	22	19	18	16	23	17	21	5
1	14	12	15	13	9	11	8	10	2
3	29	26	25	30	31	24	27	28	4

FIG.3C
RELATED ART

7, 20, 14, 29, 3, 22, 12, 26, 6, 19, 15, 25, 1, 18, 13, 5,
16, 9, 4, 23, 11, 24, 2, 17, 8, 27, 0, 21, 10, 28

FIG.3D
RELATED ART

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100:INTERLEAVE ADDRESS GENERATION APPARATUS

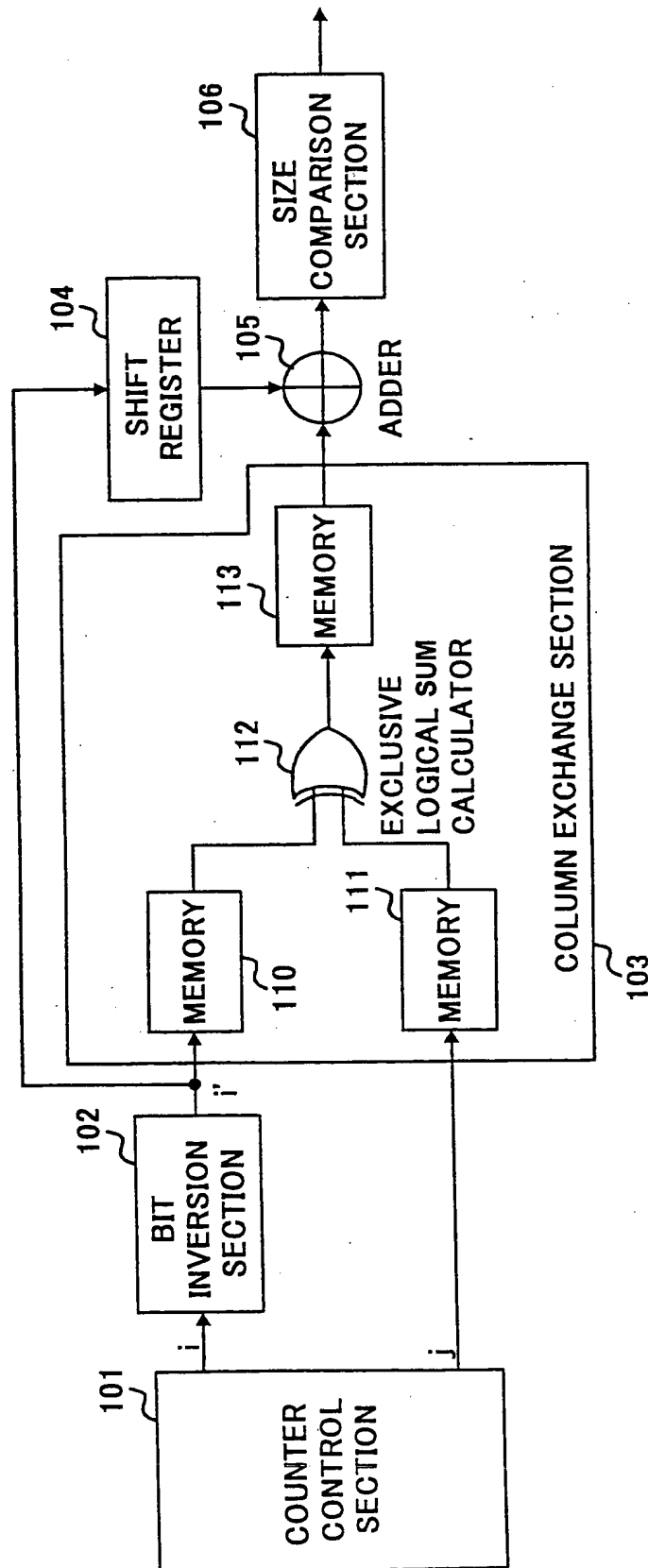
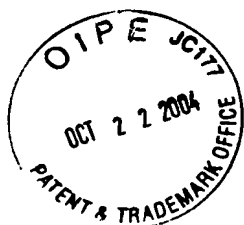


FIG.4



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MEMORY 110

INPUT i 1 DECIMAL	io	OUTPUT α^{io}
0 0 (0)	0	(1, 0, 0)
1 0 (2)	2	(0, 0, 0)
0 1 (1)	5	(1, 1, 1)
1 1 (3)	4	(0, 1, 1)

MEMORY 111

INPUT i	OUTPUT α^i
0 0 0 (0)	(1, 0, 0)
0 0 1 (1)	(0, 1, 0)
0 1 0 (1)	(0, 0, 1)
0 1 1 (3)	(1, 1, 0)
1 0 0 (4)	(0, 1, 1)
1 0 1 (5)	(1, 1, 1)
1 1 0 (6)	(1, 0, 1)
1 1 1 (7)	(0, 0, 0)

MEMORY 113

INPUT	OUTPUT
(0, 0, 0)	7
(0, 0, 1)	0
(0, 1, 0)	1
(0, 1, 1)	3
(1, 0, 0)	2
(1, 0, 1)	6
(1, 1, 0)	4
(1, 1, 1)	5

FIG.5



i	i''	j	α^{i0}	α^j	$\alpha^{i0} + \alpha^j$	$\log \alpha (\alpha^{i0} + \alpha^j)$	AFTER OFFSET ADDITION
0	0	0	(1, 0, 0)	(1, 0, 0)	(0, 0, 0)	7	$7+8 \times 0=7$
1	2	0	(1, 1, 1)	(1, 0, 0)	(0, 1, 1)	4	$4+8 \times 2=20$
2	1	0	(0, 0, 1)	(1, 0, 0)	(1, 0, 1)	6	$6+8 \times 1=14$
3	3	0	(0, 1, 1)	(1, 0, 0)	(1, 1, 1)	5	$5+8 \times 3=29$
0	0	1	(1, 0, 0)	(0, 1, 0)	(1, 1, 0)	3	$3+8 \times 0=3$
1	2	1	(1, 1, 1)	(0, 1, 0)	(1, 0, 1)	6	$6+8 \times 2=22$
2	1	1	(0, 0, 1)	(0, 1, 0)	(0, 1, 1)	4	$4+8 \times 1=12$
3	3	1	(0, 1, 1)	(0, 1, 0)	(0, 0, 1)	2	$2+8 \times 3=24$

FIG.6

REPLACEMENT SHEET

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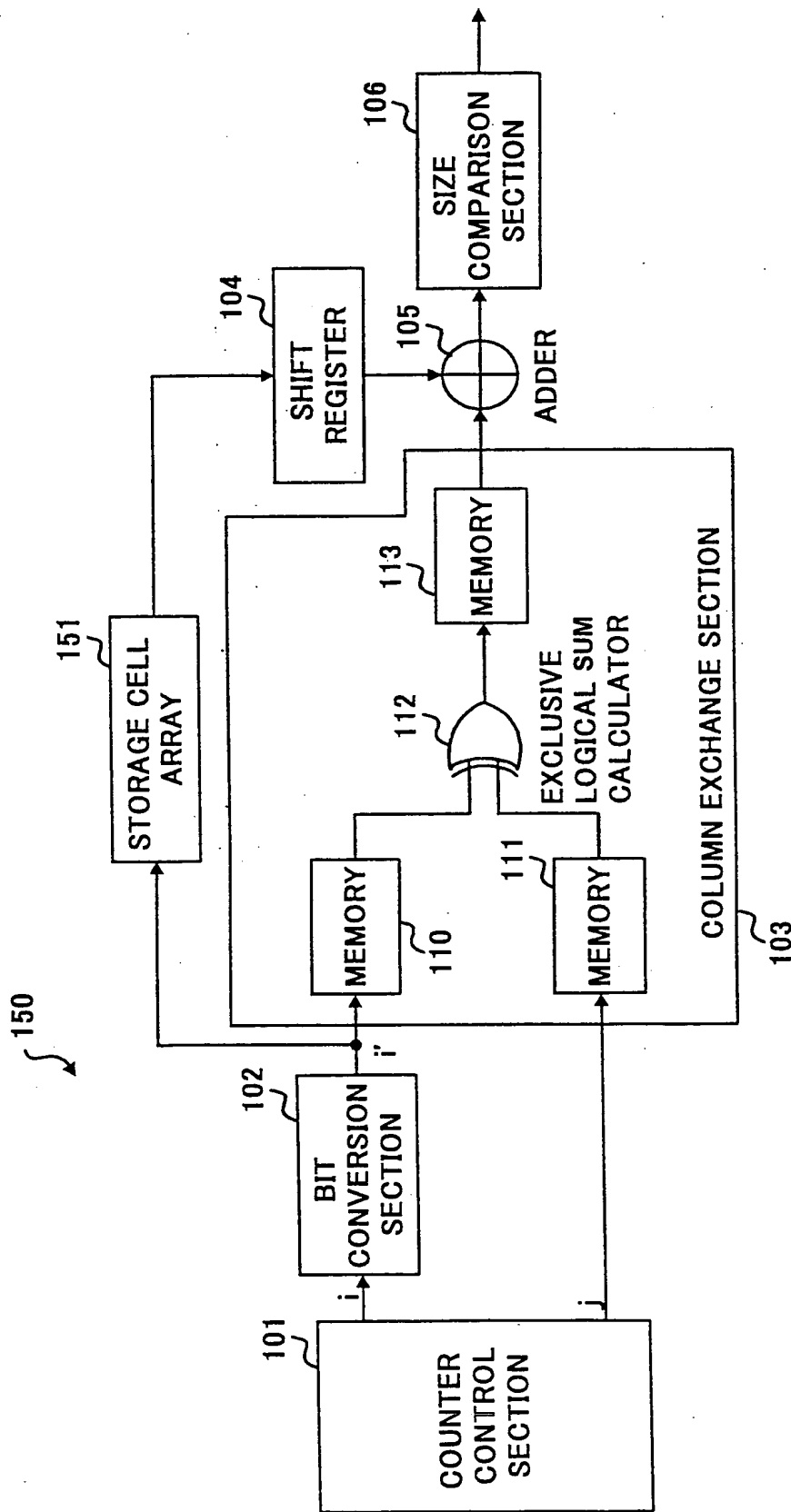
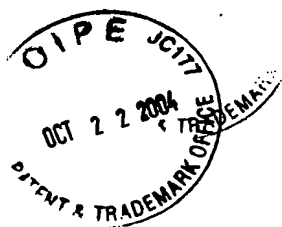


FIG.7

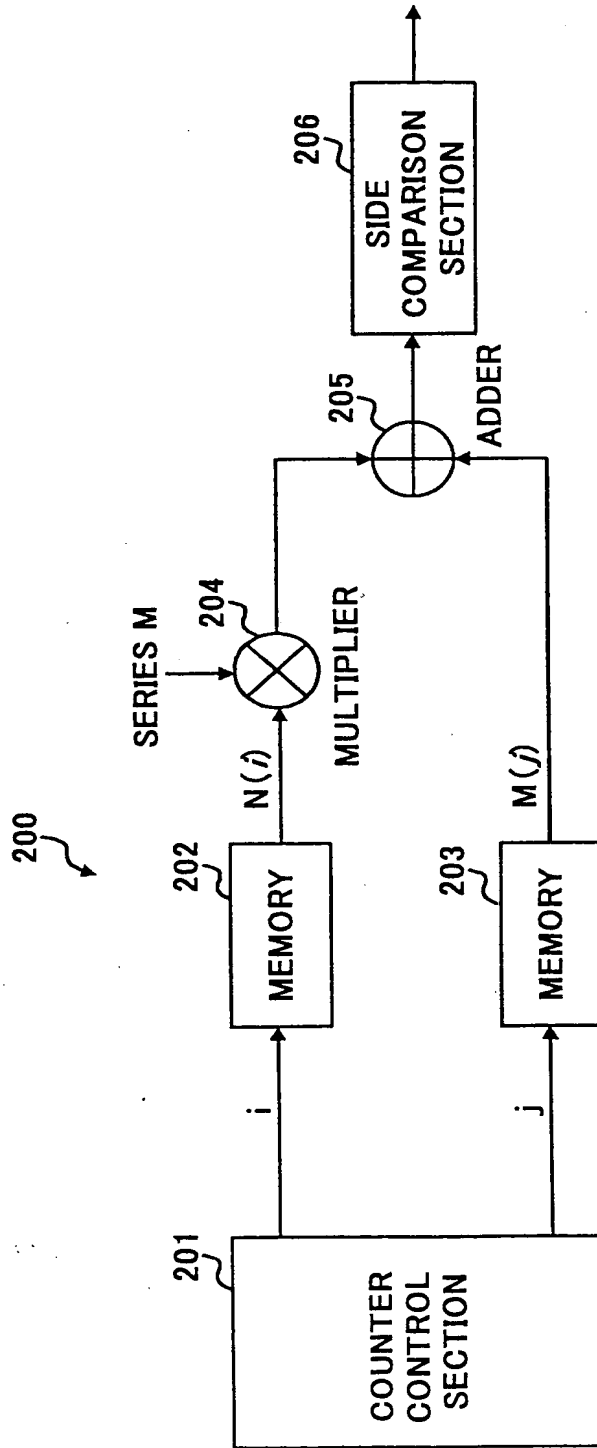


FIG.8

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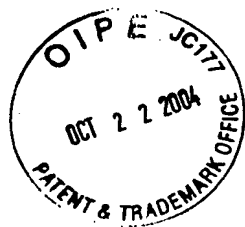


i	$N(i)$
0	2
1	3
2	0
3	1

FIG.9

j	$M(j)$
0	3
1	6
2	4
3	2
4	1
5	5
6	7
7	0

FIG.10



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<i>i</i>	0 1 2 3 0 1 2 3 0 0 1 2 3
<i>j</i>	0 0 0 0 1 1 1 1 2 7 7 7 7

FIG.11A

$N(i)$	2 3 0 1 2 3 0 1 2 2 3 0 1
$M(j)$	3 3 3 3 6 6 6 6 4 0 0 0 0

FIG.11B

ADDITION RESULT	19 27 3 11 22 30 6 14 20 23 31 7 15
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FIG.11C

INTERLEAVE ADDRESS	19 27 3 11 22 6 14 20 28 8 23 7 15
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FIG.11D

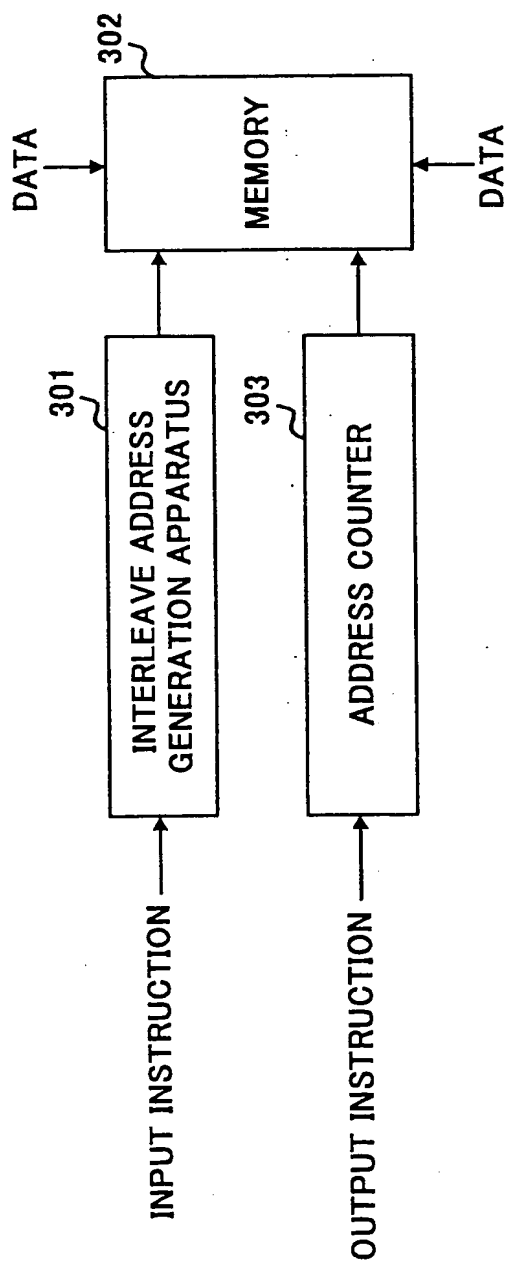


FIG.12



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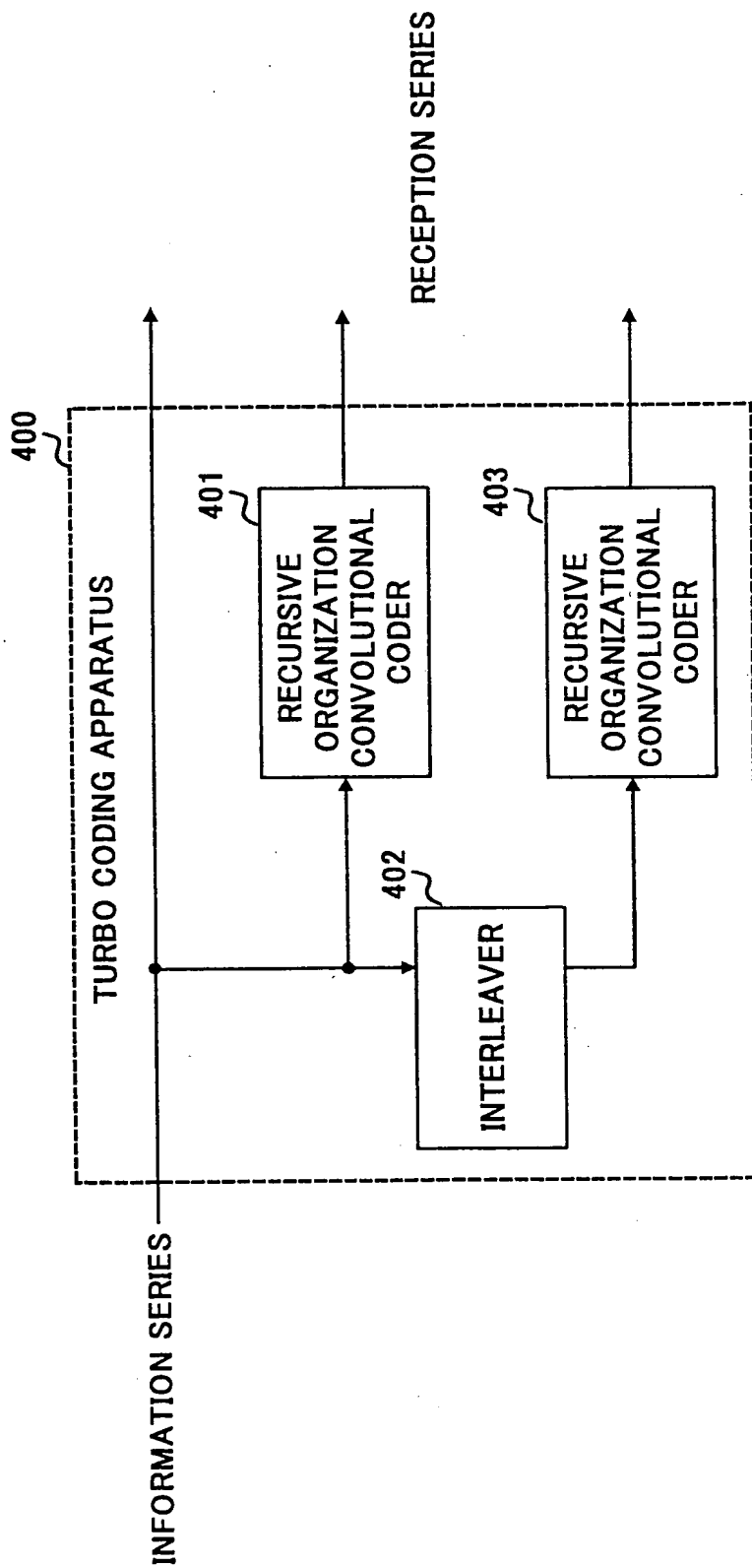


FIG.13

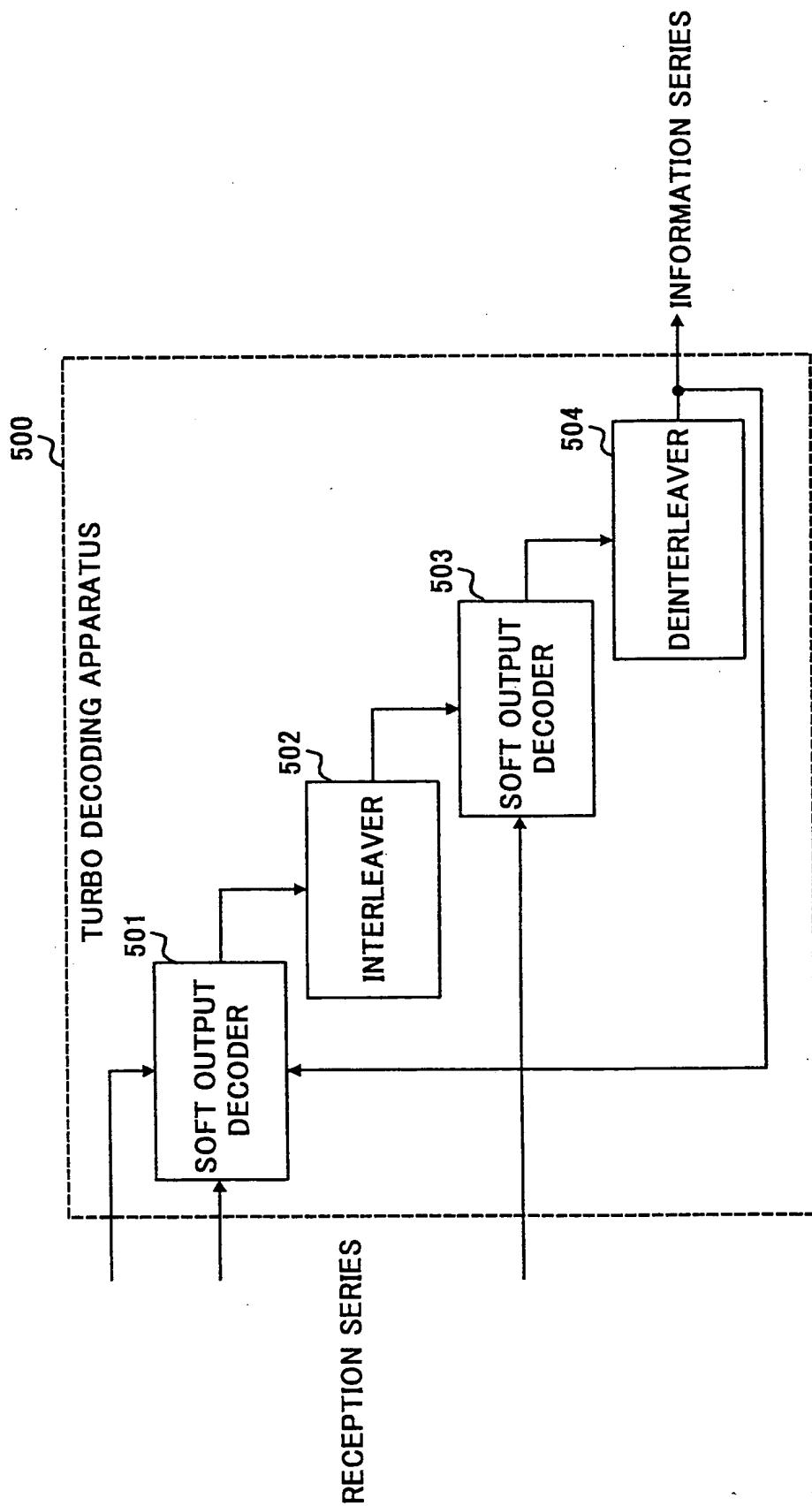


FIG.14



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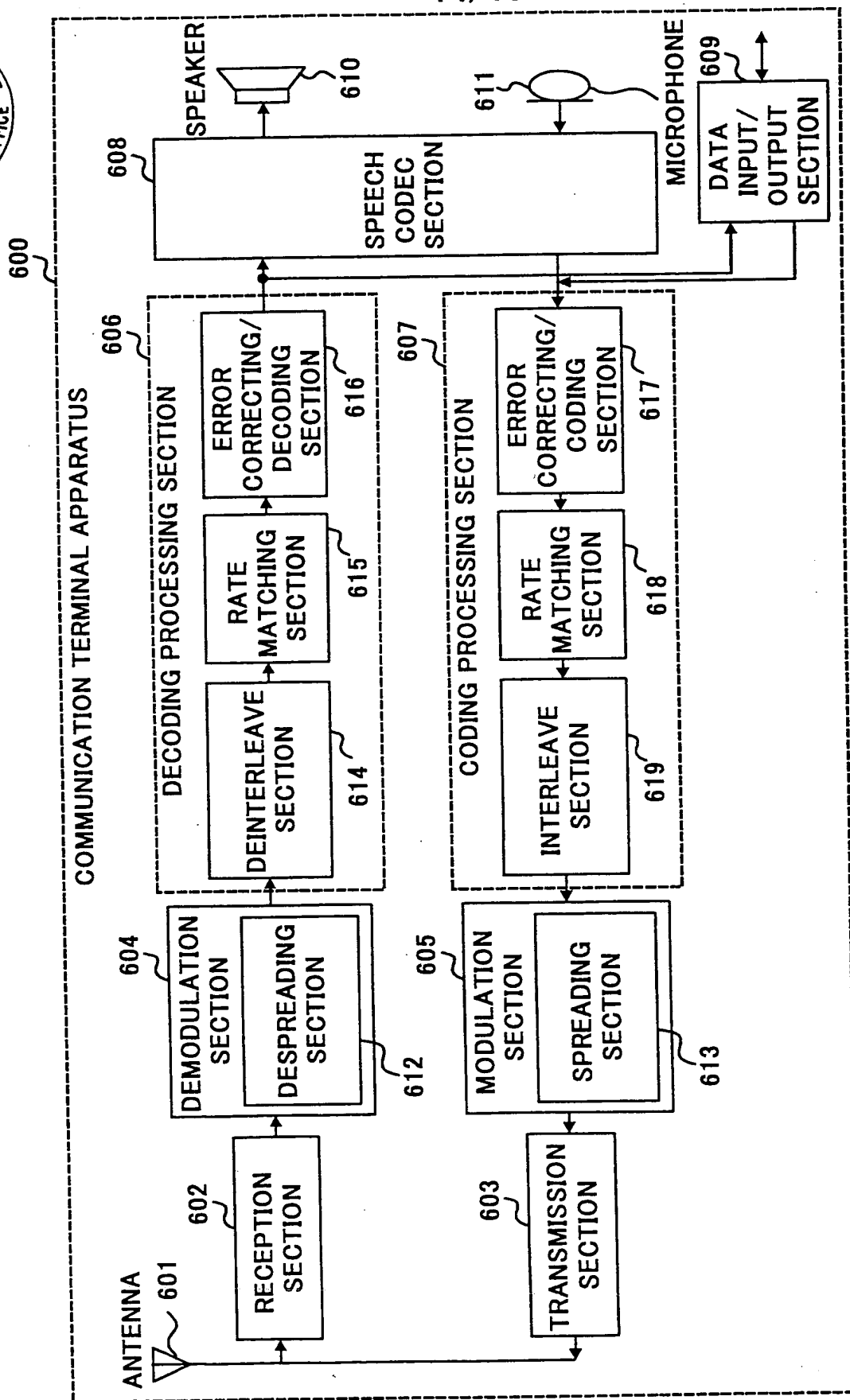


FIG.15

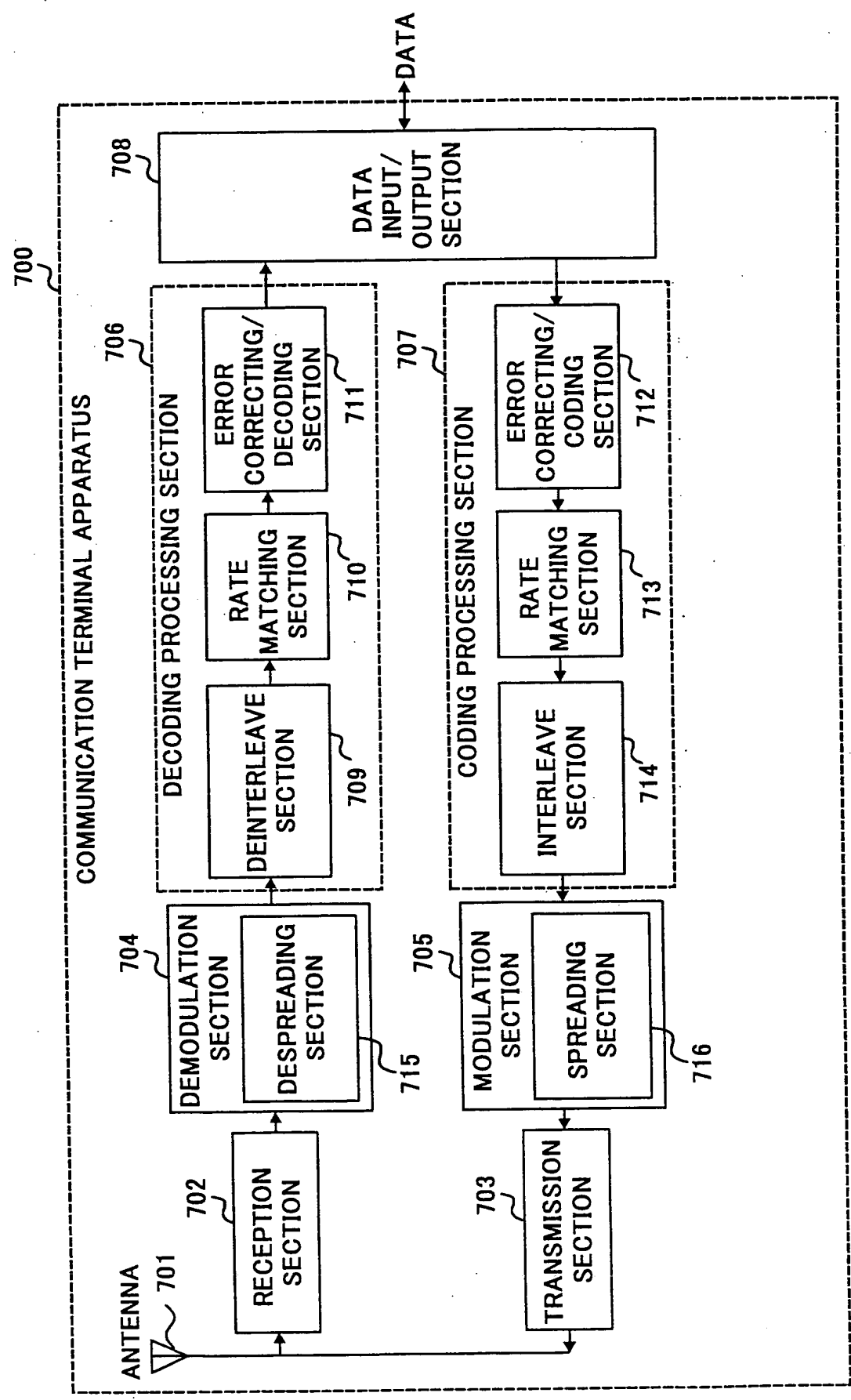


FIG.16